



## DESCRIPTION

The PT2002 is a Class-D power amplifier designed for audio equipments, maximum output power can reach up to 2.2W x 3CH (VDD = 5V, RL = 4Ω, THD = 10%). The PT2002 composed of exclusively designed Class-D circuitry (patented) by PTC, along with the most advanced semi-conductor technology. Compare with traditional Class-AB amplifiers, the PT2002 performs much better power efficiency (>80%), less heat dissipation, and produces superior audio quality. External circuitry is very simple and flexible, and consists of flawless self-protection capabilities. The chip's packaging is small, thus it occupies an insignificant amount of space on the circuit board; therefore, making it the predominant choice when it comes to audio amplifiers.

## FEATURES

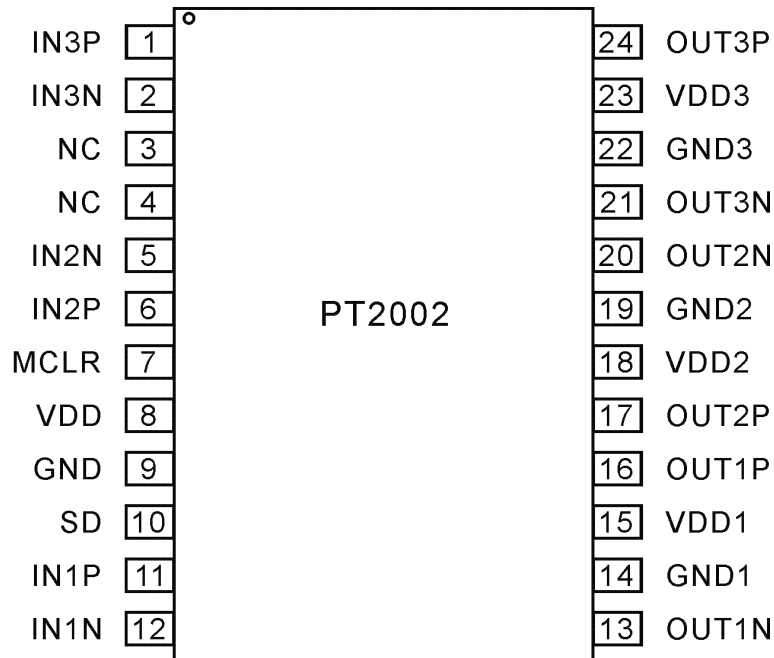
- CMOS technology
- 3 channels, differential analog input
- Maximum output power 2.2W(4Ω) x 3CH @ THD=10%
- No external LC low-pass filter required
- 20dB fixed voltage gain
- Contains shutdown function
- POP noise free during shutdown and power ON/OFF period
- User adjustable power-on delay timing
- Built-in short circuit protection
- Built-in overheat protection
- Low distortion (0.3%)
- High efficiency (>85%, 8Ω load), low heat dissipation
- SSOP 24 pins, 173 mil body width miniature packages

## APPLICATIONS

- Small multimedia speakers
- Laptop
- LCD monitor
- Portable DVD player
- Portable Media player
- Other audio applications



## PIN CONFIGURATION



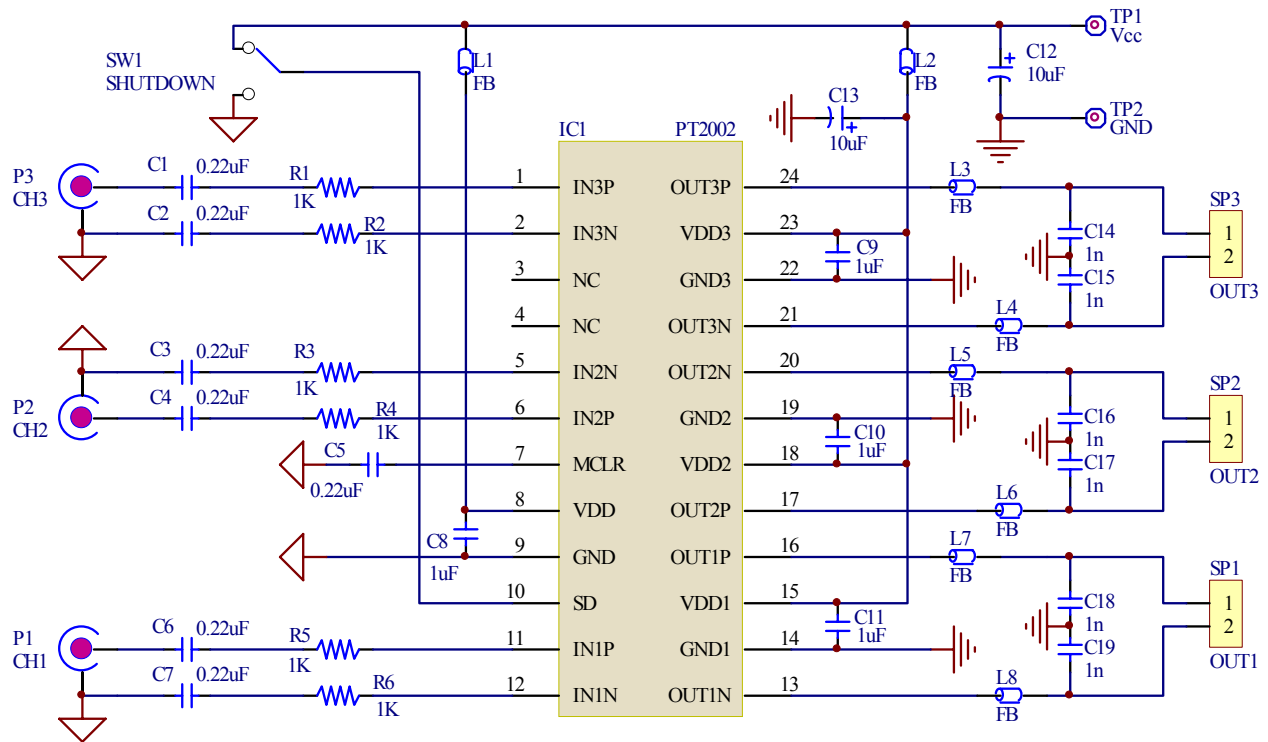


3CH, 2.2W, Class-D Audio Power Amplifier

PT2002

# APPLICATION CIRCUIT

## OUTPUT WITH FERRITE BEAD FILTER



Notes:

1. Ferrite Bead specification:  $Z=120\Omega@100\text{MHz}$ , Current>3A
2. R1, R2, R3, R4, R5, R6 is an optional for reduce gain only; in general application these resistors are not required.



## ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT2002-TX	24 Pins, TSSOP, 173mil	PT2002-TX